

IN THE CLAIMS:

Claims 1, 5, and 12 have been amended herein. New claims 21 through 30 are presented herein. All of the pending claims 1 through 30 are presented below. This listing of claims will replace all prior versions and listings of claims in the application. Please enter these claims as amended.

Listing of the Claims:

1. (Currently Amended) An isolated strain of *Lactococcus* species comprising a defective thymidylate synthase gene;

wherein said thymidylate synthase gene is selected from the group consisting of SEQ ID NO: 3 and SEQ ID NO: 5.

2. (Original) The isolated strain of *Lactococcus* species of claim 1, wherein said thymidylate synthase gene has been inactivated by gene disruption.

3. (Original) The isolated strain of *Lactococcus* species of claim 1, wherein the *Lactococcus* species is *Lactococcus lactis*.

4. (Original) The isolated strain of *Lactococcus* species of claim 2, wherein the *Lactococcus* species is *Lactococcus lactis*.

5. (Currently Amended) A transformed strain of *Lactococcus* species, said *Lactococcus* species comprising a defective thymidylate synthase gene, and further comprising a transforming plasmid,

wherein said thymidylate synthase gene is selected from the group consisting of SEQ ID NO: 3 and SEQ ID NO: 5; and

wherein said transforming plasmid does not ~~having~~ comprise an intact thymidylate synthase gene.

6. (Original) The transformed strain of *Lactococcus* species of claim 5, further comprising a gene encoding a molecule of interest.

7. (Original) The transformed strain of *Lactococcus* species of claim 6, wherein said molecule of interest is Interleukin-10.

8. (Original) The transformed strain of *Lactococcus* species of claim 5, wherein said *Lactococcus* species is *Lactococcus lactis*.

9. (Original) The transformed strain of *Lactococcus* species of claim 8, wherein the *Lactococcus lactis* comprises a gene encoding a molecule of interest.

10. (Original) The transformed strain of *Lactococcus* species of claim 9, wherein the molecule of interest is Interleukin-10.

11. (Withdrawn) A method for delivering a molecule of interest to a subject, said method comprising administering the transformed strain of *Lactococcus* species of claim 6 to the subject.

12. (Currently Amended) A composition comprising:
a transformed strain of *Lactococcus* species comprising a defective thymidylate synthase gene, and further comprising a transforming plasmid, wherein said thymidylate synthase gene is selected from the group consisting of SEQ ID NO: 3 and SEQ ID NO: 5; and
wherein said transforming plasmid does not ~~having~~ comprise an intact thymidylate synthase gene.

13. (Original) The composition of claim 12, wherein the *Lactococcus* species further comprises a gene encoding a molecule of interest.

14. (Original) The composition of claim 13, wherein said molecule of interest is Interleukin-10.

15. (Original) The composition of claim 12, wherein said *Lactococcus* species is *Lactococcus lactis*.

16. (Original) The composition of claim 15, wherein the *Lactococcus lactis* comprises a gene encoding a molecule of interest.

17. (Original) The composition of claim 16, wherein the molecule of interest is Interleukin-10.

18. (Withdrawn) A method of treating inflammatory bowel disease in a subject, said method comprising:
administering to the subject a transformed strain of *Lactococcus* species of claim 6.

19. (Withdrawn) The method of claim 18, wherein the molecule of interest is Interleukin-10.

20. (Withdrawn) A method for delivering a molecule of interest to a subject, said method comprising administering the transformed strain of *Lactococcus* species of claim 9 to the subject.

21. (New) An isolated *Lactococcus* bacterium comprising:
a genome, and, incorporated into said genome, a means for encoding a defective thymidylate synthase gene; and
wherein said genome has been genetically modified in comparison to wild-type *Lactococcus*.

22. (New) The isolated *Lactococcus* bacterium of claim 21, wherein the means for encoding a defective thymidylate synthase gene comprises a thymidylate synthase gene selected from the group consisting of SEQ ID NO: 3 and SEQ ID NO:5.

23. (New) The isolated *Lactococcus* bacterium of claim 21, wherein the *Lactococcus* bacterium is a *Lactococcus lactis* bacterium.

24. (New) The isolated *Lactococcus* bacterium of claim 21, further comprising a transforming plasmid; and

wherein said transforming plasmid does not comprise an intact thymidylate synthase gene.

25. (New) The isolated *Lactococcus* bacterium of claim 24, further comprising a gene encoding a molecule of interest.

26. (New) The isolated *Lactococcus* bacterium of claim 25, wherein said molecule of interest is Interleukin-10.

27. (New) The isolated *Lactococcus* bacterium of claim 24, wherein said *Lactococcus* bacterium is a *Lactococcus lactis* bacterium.

28. (New) The isolated *Lactococcus* bacterium of claim 27, wherein the *Lactococcus lactis* bacterium comprises a gene encoding a molecule of interest.

29. (New) The isolated *Lactococcus* bacterium of claim 28, wherein the molecule of interest is Interleukin-10.

30. (New) A composition comprising: the isolated *Lactococcus* bacterium of claim 21.